

Cynthia Beckon
9/29/95 Thursday

Steve Gordon - ESA

LOS A for Rte 127 using
1995 HCM. as shown

2 lane changed (changed in 1990)
if Steve requires add for
Jack Hutchinson

(415) 896-5900

301 Brannan St. Ste. 200
S.F. 94107-1811

send ~~the~~ ^{to} old
on Rte 127 LOS
Calcs.

* Get summary Traffic Count
during info. from Glen to send to Glen
will do

DISTRICT 9
ROUTE CONCEPT REPORT

Route 127
INY-127-0.000/49.420

Prepared by:

Transportation Planning Branch
District 9
January, 1985

STATEMENT OF PLANNING INTENT

The Route Concept Report (RCR) is a planning document which expresses the Department's judgment on what the characteristics of the state highway should be to respond to the projected travel demand over the 20-year planning period.

The RCR contains the Department's goal for the development of each route in terms of level of service and broadly identifies the nature and extent of improvements needed to reach those goals. The RCR then provides the basis for the preparation of route development plans and the system analysis which indicates the level of service provided on the system at a given level of funding.

This Route Concept Report was prepared in District 9 and represents the combined expertise of district staff. Facility dimensions e.g., roadway widths or number of lanes on a multilaned facility discussed in the RCR represent an initial planning approach to scoping candidate improvements and determining estimated costs.

All information in this Route Concept Report is subject to change as conditions change and new information is obtained. Consequently, the nature and size of identified improvements may change as they move through the project development stages, with final determinations made at the time of project planning and design. If the nature and size of improvements change from that included in this report during later project development stages, this will be cause to review the Route Concept Report for this route.

SUMMARY SHEET
Route 127 Concept Report

ROUTE CONCEPT - Operational and safety improvements are needed to maintain a LOS of C-40.

CONCEPT RATIONALE - Soft shoulders as well as the traffic mix justify widening the cross section. The extra width will provide for evasive maneuvers, emergency parking and greater side clearance.

Relocation of the route will eliminate four of the five places where the facility crosses a normally dry riverbed. Flood damage is common in these areas and the cost of building structures is probably not feasible.

Curve corrections, in a few locations are advised. The terrain is relatively flat and the right of way cost nominal. This would improve the operating speeds and might reduce the number of "overturn" accidents.

ISSUES OF CONCERN - The lack of shoulders for emergencies, slow moving vehicles, evasive maneuvers, and side clearance are concerns. With 15% average trucks, 40% average recreational vehicles, and the soft unpaved shoulders, the capacity of the facility is severely reduced.

Flash floods are a concern on Route 127. When it storms the road is usually flooded and often washed away. Road closures have been averaging a couple times per year due to major storm damage. Besides relocating the route for four miles, minor drainage corrections would alleviate much of the damage during floods.

Although the accident rate does not exceed the threshold level, about half of the accidents involve overturned vehicles caused by speeding or improper driving. Correcting some of the more restrictive curves might reduce this type of accident.

IMPROVEMENTS

- ° Widen to 28 feet from P.M. 0.8 to 14.0 and from P.M. 34.3 to 49.4
- ° Relocate route for approximately four miles from P.M. 21.8 to 23.4 and from P.M. 29.2 to 31.6
- ° Correct curves in a few locations
- ° Improve drainage

ROUTE 127
ROUTE CONCEPT REPORT
Iny-127-0.00/49.42

ROUTE DEFINITION

This Route Concept Report covers that portion of Route 127 in Inyo County, a distance of 49.4 miles. Route 127 begins at its junction with Route 15 near Baker in San Bernardino County and runs north to the Nevada State Line.

Route 127 will be treated as one segment, but analyzed in a series of subsegments.

ROUTE PURPOSE

Route 127 was added to the State Highway System in 1933 and to the Freeway/Expressway System in 1959. It is functionally classified as a Minor Arterial and is part of the Federal Aid Primary (FAP) System. Also, it is an eligible state highway in the Scenic Highway System. This route is not included in the SHELL (subsystem of highways for the movement of extra legal permit loads) system, nor is it designated by AB 866 as a route usable by the "big trucks."

This facility has regional and state significance. It is an important link between California and Nevada and serves as a major highway for motorists going to Death Valley National Monument. It traverses some of the most desolate and scenic desert terrain in the State. The motorists are primarily tourists, and many are foreigners. In 1983, over 650,000 people visited this 2,000,000 acre monument.

Transit on Route 127 is minimal, but school buses, some of which travel up to 70 miles one-way, are dependent on the reliability of this route.

Truck traffic averages about 15%. The majority of the trucks are hauling ore from local mines.

Recreational vehicles (RV's) through Death Valley National Monument constitute 40% of the traffic according to the National Park Service public use counts. Since Route 127 is one of the two major routes into the Monument, it is assumed RV's comprise 40% of this route's traffic.

EXISTING FACILITY (See Figure 1)

Type

All of Route 127 is a 2-lane conventional highway.

Pavement Widths (Traveled Way)

The traveled way is 24 feet.

Paved Shoulder Widths

	0'	1'	2'	4'	8'
In Miles	8.4	20.8	19.7	0.4	0.1

Right of Way Widths

Right of way varies from 40 to 400 feet.

Terrain

Route 127 traverses flat desert terrain winding mostly through a river plain.

The following is a percentage breakdown of grades and the average passing sight distance restriction for Route 127:

Avg. Sight Restriction	Under 3% Grade	3% to 6% Grade	Over 6% Grade
12%	98%	1%	1%

PRESENT AND FUTURE OPERATING CONDITIONS

An analysis was made of Route 127 to determine if any accident and/or capacity concerns exist.

It appears that the capacity will not be exceeded within the next 20 years. (See Figure 2)

Even though the accident rates do not exceed the threshold levels, there may be a concern with the amount of overturned vehicles. Approximately 50% of all accidents involve "overturns." These are usually due to speeding, crossing over into the oncoming traffic lane, improper driving, or to the sharp curves.

Road damage due to flash floods is a major concern. Since the route is in the floodplain, of the Amargosa River and is adjacent to the riverbed, sections of roadbed are frequently washed out during floods. Route 127, in many locations, has experienced an average of two road closures each year for the last five years due to major flooding. These are not included in the closures declared Federal disasters which have been averaging one every other year.

In several locations along the route, there are "soft shoulder" warning signs.

Route 127 crosses the Amargosa riverbed in several locations. In the summer of 1970, 10 miles of the route was relocated onto an abandoned railroad bed eliminating four of the nine crossings in Inyo County.

There are many horizontal and vertical curves due to the winding, rolling nature of the terrain. Many of the curves are signed for reduced speed.

CONDITIONS NOT COVERED BY THE STIP/FUTURE CONCERNS

There are no major construction projects programmed in the approved 1984 STIP for Route 127. Therefore, the current conditions and concerns will continue to exist.

ROUTE CONCEPT/RATIONALE

The concept for Route 127 is to widen the cross section to 28 feet (12-foot lanes and 2-foot paved shoulders). The greater-than-average volume of trucks and RV's reduces the roadway capacity and leads to unwise passing attempts. Soft shoulders, along with the traffic mix, are also a factor. The extra width will better provide for evasive maneuvers, emergency parking, and greater side clearances.

Relocation of the route for approximately four miles would eliminate four of the remaining five riverbed crossings. This probably would be more cost effective than building drainage structures.

Also, a few curve corrections and minor drainage improvements are advised.

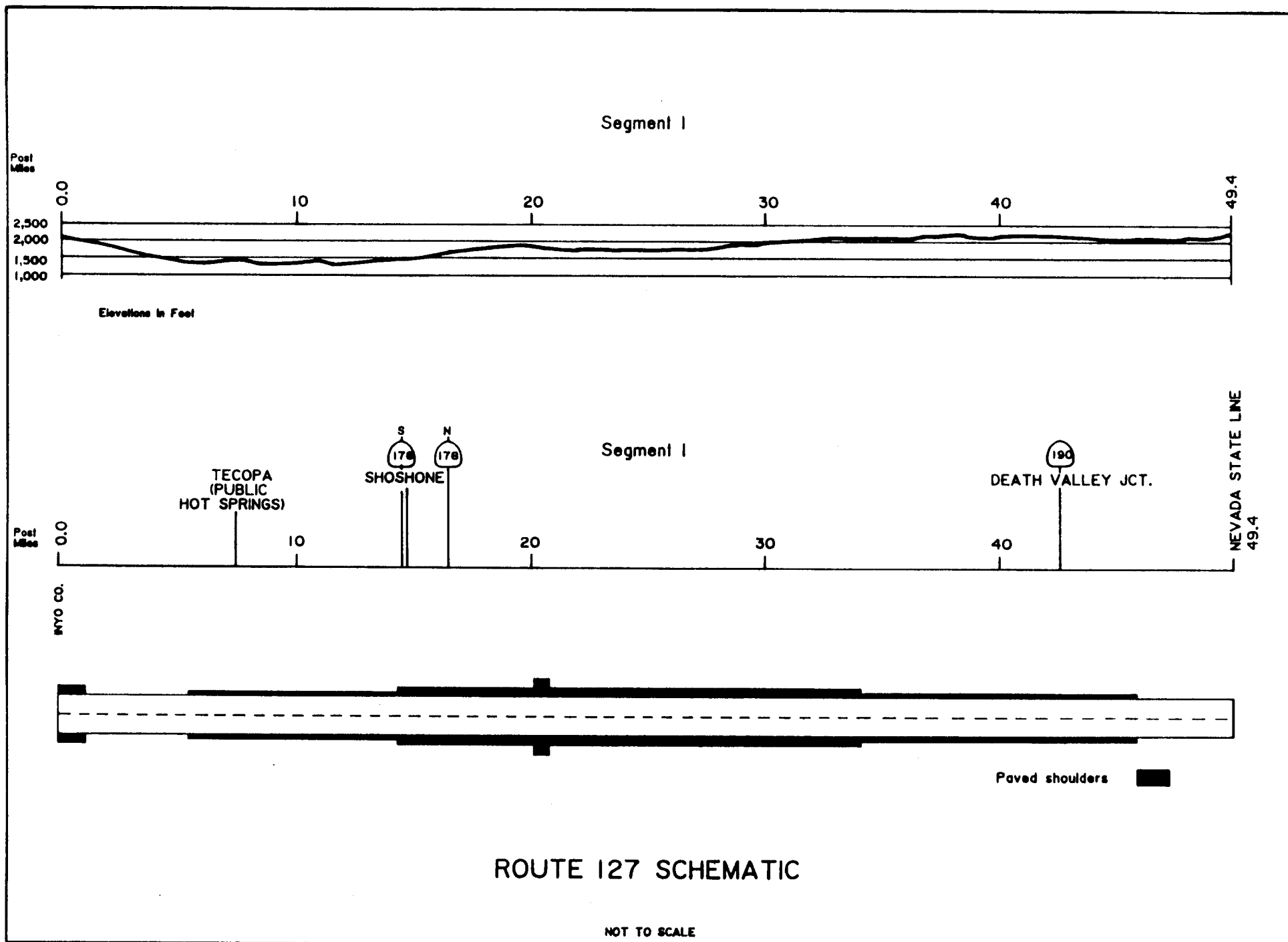
ROUTE IMPROVEMENTS

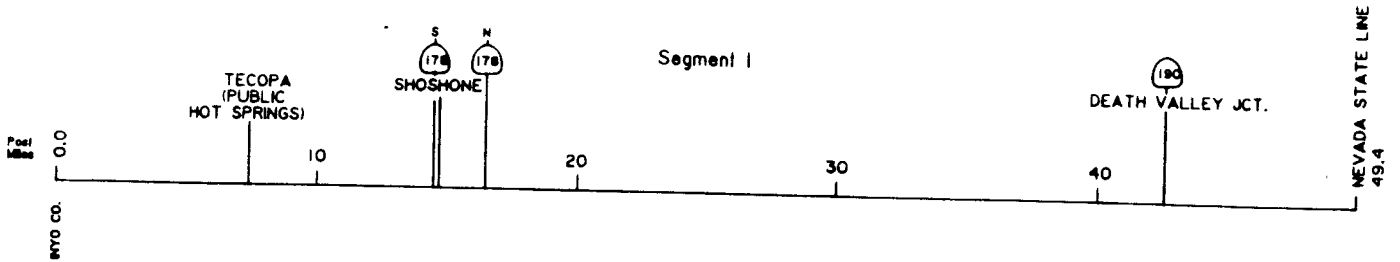
Shoulder widening from P.M. 0.8 to 14.0 and from P.M. 34.3 to 49.4 is recommended.

Relocation of the route to follow the bluff line, west of the riverbed, from P.M. 21.8 to 23.4 and from P.M. 29.2 to 31.6 is suggested to alleviate the damage caused by floods.

Minor drainage improvements and a few curve corrections are needed to improve the operational quality of the route.

Figure 1





PM/PM	0.00/9.44	9.44/19.00	19.00/42.1	42.1/49.42
1983 ADT	500	540	660	700
1983 V/C	.10	.10	.11	.11
1995 ADT	500	590	760	800
1995 D/C	.10	.11	.12	.12
2005 ADT	600	640	760	800
2005 D/C	.12	.11	.12	.12
Threshold	.83	.83	.70	.70
ACC/MVM	.39	.35	.48	.00
SWA	2.55	2.55	2.55	2.55
Threshold	3.7	3.7	3.7	3.7
F+I/MVM	.39	.18	.18	.00
SWA	1.22	1.22	1.22	1.22
Threshold	1.5	1.5	1.5	1.5
FAT/MVM	0	0	0	0
SWA	.102	.102	.102	.102
A/M/Y	.07	.07	.12	0
Threshold	3.2	3.2	3.2	3.2
F+I/M/Y	.07	.07	.06	0
Threshold	2.0	2.0	2.0	2.0
LOS	C-40	C-40	C-40	C-40

NOTE: Accident data is for 7-1-80 - 6-30-83

Figure 2